

ABSTRACT OF THE DISCLOSURE

An IR sensor device in accordance with the present invention includes an optical train, a focal plane array (FPA) for receiving incoming ray bundles that have passed through the optical train, and a decentered plano-convex field lens positioned therebetween. The field lens is decentered in that it is positioned so that the optical axis intersects the field lens at an offset distance from the geometric center of the lens perimeter. When the field lens is positioned in this manner, optical ray bundles that pass through the field lens establish a revised image plane. To compensate for the revised image plane, the FPA is tilted until the FPA is co-planar with the revised image plane. Any reflected optical ray bundles are refracted as they pass back through the field lens and directed away from the pupil, to prevent reflected optical ray bundles from entering the optical train and leaving the sensor as an IR retro-reflection during operation of the device.